

SOME OF THE DIPTERA TO BE COLLECTED DURING APRIL
AND MAY.

BY C. W. JOHNSON, BOSTON, MASS.

THE Diptera is one of the first orders to appear in considerable numbers in the early spring, and during the months of April and May many species occur which are not to be found at any other time. A number of peculiar *Mycetophilidae*, *Chironomidae*, and *Tipulidae* are to be found, while the *Bibionidae* are especially numerous during the first two weeks in May. *Bibio albipennis*, *B. femorata*, *B. pallipes* and *Dilophus breviceps* are frequently taken as early as the middle of April. The two sexes vary considerably and a comparative study of the spring and fall species is desirable.

In the *Leptidae* are many exceedingly interesting species, and the life history of most of them can be very readily studied. *Xylophagus lugens* appears about the middle of April, the larva can be found beneath the bark of decaying chestnut and oak. The only New England record for *X. abdominalis* is of a specimen bred from a larva found under bark by Mr. A. P. Morse, at Wellesley, Mass., April 15. *X. rufipes* and *X. longicornis* are recorded from New England without date. *Leptis plumbeus* should be found early in May about stumps and trees, followed a little later by *L. punctipennis* and *L. mystacea*. The species of *Chrysophila* rarely make their appearance before the first of June.

Many species of *Stratiomyidae* are to be found during May, *Actina viridis*, *Microchrysa polita*, and *Sargus viridis*, while *Stratiomyia discalis*, *Odontomyia interrupta* and *O. pubescens* frequent the flowers of the *Amelanchier canadensis* and *Pyrus arbutifolia*. Very few of the *Asilidae* make their appearance before June. *Nicoles politus* Say, recorded from Mass., was taken by the writer Apr. 15, in southern New Jersey, two or three species of *Cryptopogon* are to be found in May, also *Daulopogon tetragrammus* and *D. terricola*. The latter has been collected at Chicopee, Mass., May 24.

Some of the most interesting forms of spring flies belong to the genus *Bombylius*. *B. major* is frequently found as early as the middle of April, and *B. pygmaeus* and *B. atriceps* about the middle of May. *B. pulchellus* should also be found in New England; it is taken in the vicinity of New York city from May 10-20. The *Empidae*, one of the families of smaller flies, contains a number of species which are quite common throughout the month of May.

In the family *Syrphidae* are many rare and interesting forms, which are only

taken at this time. The plum, sand myrtle (in southern New Jersey) willow and other early spring flowers, and the sap of maple, birch, etc., usually attract them in considerable numbers. *Chrysotoxum pubescens*, several species of *Pipeza*, *Chilosia*, *Syrphus* and *Sphagina* are to be found at this time, *Brachyopa vacua* frequents sap early in May, while several species of *Eristalis* and *Helophilus* frequent the early flowers. The large *Criorhina verbosa* was taken as early as March 30 (1902) at Medford, Mass., by Mr. C. A. Frost. *C. umbratilis* and *C. analis* are sometimes found in May but more commonly early in June. *Brachypalpus frontosus* often appears early in April.

Myopa vicaria and *M. vesiculosa* of the family *Conopidae* are to be found on flowers, especially the plum. In the *Tachinidae* many species appear quite early but almost all of them are to be found later. *Anthomyidae* are quite common, while the graceful *Cordytura* and the pretty winged *Tetanocera* are frequently taken. During the latter part of May those interesting Ortalids, *Pyrgota undata* and *P. valida* are to be found. Many *Sapromyzidae*, *Oscinidae* and *Ephydriidae* may be collected by sweeping over the grass or in damp sheltered places for the latter. By far the most interesting species is the little "hammer headed fly" (*Sphyracephala brevicornis* Say) which is often taken on the leaves of the "Skunk cabbage" as early as April, although found much later. I captured a specimen at the Blue Hills, Mass., June 6.

The spring of the year is a good time to work out (in part) the life history of many species, the strange larvae one finds in old stumps, logs, or under stones, if taken carefully and kept under like conditions usually pupate in a short time and in a few days the imago appears. Notes and drawings should be made, or specimens of the larva and pupa, if you have duplicates, should be saved.

MEROPE TUBER. I am able to add another to the sixteen records given by Mr. Herbert S. Barber, in his interesting paper on the "Occurrence of the earwig-fly, *Merope tuber* Newman." (Proc. Entom. Soc. Wash. VI, 50). This specimen, a male, is in the local collection of the Wagner Free Institute of Science, Philadelphia. It was captured several years ago by Mr. Philip Nell, in Fairmount Park.— *C. W. Johnson*.

PELECINUS POLYTURATOR Drury. Two males of this species were collected in 1902 by Mr. Owen Bryant, at Cohasset, Mass. Mr. Bryant has presented them to the "New England collection" of the Boston Society of Natural History.— *C. W. Johnson*.